

CLAIMS

What is claimed is:

1. A system comprising:

5 a first substrate configured to provide location identification signals to a plurality of locations on the first substrate;

a plurality of connectors coupled to the first substrate at the plurality of locations, each connector comprising an identification device uniquely configured to provide substrate location information and to receive the corresponding

10 location identification signals; and

a plurality of second substrates, each second substrate coupled to a corresponding connector such that the unique identification device couples the corresponding location identification signals to the second substrate.

15 2. The system, as set forth in claim 1, wherein the first substrate is configured to receive five connectors.

3. The system, as set forth in claim 1, wherein each connector comprises a memory cartridge connector.

20 4. The system, as set forth in claim 1, wherein the first substrate is configured to receive an array of connectors arranged in a plurality of rows and columns.

5. The system, as set forth in claim 4, wherein each connector comprises a memory cartridge connector.

6. The system, as set forth in claim 1, wherein each identification device comprises a plurality of contacts uniquely configured to be coupled to one of a logical high signal and a logical low signal.

7. The system, as set forth in claim 1, wherein the uniquely configured identification device represents a physical location of the corresponding connector with respect to the first substrate.

8. The system, as set forth in claim 1, wherein the uniquely configured identification device represents an electrical location of the corresponding connector with respect to the first substrate.

9. The system, as set forth in claim 1, wherein each of the plurality of second substrates comprises a plurality of memory modules.

10. The system, as set forth in claim 9, wherein each of the plurality of memory modules comprises a plurality of memory devices.

11. The system, as set forth in claim 9, wherein each of the plurality of second substrates comprises a memory controller.

12. A system comprising:

a first substrate; and

a plurality of connectors coupled to the first substrate and configured to receive a

plurality of second substrates, each connector comprising a plurality of unique

identification devices uniquely configured to provide substrate location

information and to electrically couple a plurality of location identification

signals to a corresponding second substrate, the electrical signals being

received from traces on the first substrate.

13. The system, as set forth in claim 12, wherein the first substrate is configured to receive five connectors.

14. The system, as set forth in claim 12, wherein each connector comprises a memory cartridge connector.

15. The system, as set forth in claim 12, wherein the first substrate is configured to receive an array of connectors arranged in a plurality of rows and columns.

16. The system, as set forth in claim 16, wherein each connector comprises a memory cartridge connector.

17. The system, as set forth in claim 12, wherein each identification device comprises a plurality of contacts uniquely configured to be coupled to one of a logical high signal and a logical low signal.

18. A connector configured to be coupled to a first substrate and configured to receive a second substrate, wherein the connector comprises an identification device uniquely configured to provide location information and to electrically couple a plurality of location
5 identification signals to the second substrate, the electrical signals being received from traces on the first substrate.

19. The connector, as set forth in claim 18, wherein the connector comprises a memory cartridge connector.

20. The connector, as set forth in claim 18, wherein the identification device comprises a plurality of contacts uniquely configured to be coupled to one of a logical high signal and a logical low signal.

21. The connector, as set forth in claim 18, wherein the identification device represents a physical location of the corresponding connector with respect to the first substrate.

22. The connector, as set forth in claim 18, wherein the identification device represents an electrical location of the corresponding connector with respect to the first substrate.

23. A method of identifying the location of a substrate in a system comprising the acts of:

(a) providing a first substrate;

(b) coupling a plurality of connectors to the first substrate, the connectors each comprising a plurality of contacts and traces arranged in a unique configuration with respect to the others of the plurality of connectors, wherein the unique contact and trace configuration provides location information;

5 (c) electrically coupling each of the plurality of contacts to the first substrate;

(d) providing a logical signal to each of the plurality of contacts, the logical signals providing a unique identifier for each of the plurality of connectors, wherein the unique identifier corresponds to a unique location of one of the plurality of connectors;

10 (e) coupling a plurality of second substrates to the plurality of connectors;

(f) electrically coupling the plurality of second substrates to the plurality of contacts;
and

(g) latching the plurality of logical signals of the plurality of contacts to a plurality of control devices existing on the plurality of second substrates.

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24. The method, as set forth in claim 23, wherein act (b) comprises the act of coupling five connectors to the first substrate.

20 25. The method, as set forth in claim 23, wherein act (b) comprises the act of coupling a plurality of connectors to the first substrate, the connectors each comprising three contacts.

26. The method, as set forth in claim 23, wherein act (b) comprises the act of coupling a plurality of connectors to the first substrate, the connectors arranged in a plurality of rows and columns.

5 27. The method, as set forth in claim 23, wherein act (b) comprises the act of coupling a plurality of memory cartridge connectors to the first substrate.

28. The method, as set forth in claim 23, wherein act (d) comprises the act of providing one of a logical high signal and a logical low signal to each of the plurality of
10 contacts.

29. The method, as set forth in claim 23, wherein act (e) comprises the act of coupling a plurality of memory cartridges to the plurality of connectors.

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